

280
28

APR 1977

CANADA
GROUP 316
CLASS 280
RECORDED

⑩ ⑪ No. 1008111

⑫ ISSUED 770405

⑬ CLASS 305-39
C.R. CL.

⑭ ⑮

CANADIAN PATENT

ARCT. ★ Q22

Ski construction for snowmobile vehicle - has upwardly curved leading tip to reduce snow spray

ARCTIC ENTERPRISES 13.11.74-CA-213652

(05.04.77) B62d-001*

The ski has an elongated body (12) with an upwardly curved forward portion (14) terminating in a leading tip (16), a

central portion (18) and edge portions (20, 22) respectively extending laterally outwardly from the central portion (18). In the basic ski construction this central portion is in the form of a longitudinal depressed channel which is commonly formed in snowmobile skis to prevent sideward sliding when the vehicle is in motion, especially when cornering.

A ski having this shape deflects snow downwardly and to the sides, thus eliminating or substantially reducing the amount of snow sprayed onto the driver and passenger, depending on speed of the vehicle and snow conditions.

13.11.74 as 213652 (7pp908)

⑯ APPLICATION No. 213,652
⑰ FILED 741113

⑲ PRIORITY DATE

No. OF CLAIMS 7

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CCA-274 (2-74)

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BRIEF SUMMARY OF THE INVENTION

The invention relates to a ski for a snowmobile and particularly to a ski having means to deflect snow away from the driver of the vehicle.

BACKGROUND OF THE INVENTION

The spraying of snow backwardly over the hood of a snowmobile onto the driver and passenger has long been a safety and comfort problem in snowmobiling, especially as the vehicle transverses terrain at high speeds. It has been found that the existing typical prior art snowmobile ski contributes greatly to this problem. Such ski generally has an elongated body with an upwardly curved forward portion and outer edges extending laterally in substantially a straight line along the entire length thereof, including the upwardly curved forward portion.

SUMMARY OF THE INVENTION

The above problem is overcome by curving a portion of the upwardly curved portion of the ski laterally outwardly and downwardly. A ski having this shape deflects snow downwardly and to the sides, thus eliminating or substantially reducing the amount of snow sprayed onto the driver and passenger, depending on speed of the vehicle and snow conditions.

BRIEF DESCRIPTION OF THE DRAWINGS

20 FIGURE 1 is a top plan view of a snowmobile ski embodying the present invention;

FIGURE 2 is a side elevational view of the forward portion of FIGURE 1;

FIGURE 3 is a cross-sectional view taken along line 3-3 of FIGURE 2;

FIGURE 4 is a cross-sectional view taken along line 4-4 of FIGURE 2;

FIGURE 5 is a cross-sectional view taken along line 5-5 of FIGURE 2;



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FIGURE 6 is a top plan view of an alternate ski construction embodying the present invention;

FIGURE 7 is a cross-sectional view taken along line 7-7 of FIGURE 6; and

FIGURE 8 is a cross-sectional view taken along line 8-8 of FIGURE 6.

DESCRIPTION OF THE PREFERRED EMBODIMENTS

The drawings show a snowmobile ski generally designated by the A numeral 10, a pair of which are typically attached in parallel spaced-apart relationship at the front end of a snowmobile (not shown) by any one of a 10 number of means well known in the art, although some snowmobiles employ a single ski.

The ski 10 has an elongated body 12 with an upwardly curved forward portion 14 terminating in a leading tip 16, a central portion 18 and edge portions 20 and 22 respectively extending laterally outwardly from the central portion 18. In the basic ski construction shown in FIGURES 1 through 5, this central portion is in the form of a longitudinal depressed channel which is commonly formed in snowmobile skis to prevent sideward sliding when the vehicle is in motion, especially when cornering. As will be apparent, the invention is applicable to other basic ski configurations, 20 for example, a flat ski as shown in FIGURES 6 through 8.

In accordance with the invention the edge portions 20 and 22 are curved downwardly at the front of the ski 16 to form an arcuate portion 24 in transverse cross section as best shown in FIGURES 4 and 5.

While the invention is not limited thereto, the following example describes a specific form that has achieved excellent results. The arcuate portion 24 extends from a point near the midpoint on the arc defining the upwardly curved forward portion 14 of the ski 10 to the leading tip 16. The radius of curvature of the arcuate portion 24 increases from zero at the

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midpoint to approximately 2 inches at the tip 16 on a ski approximately 6-1/2 inches wide and 46 inches long. Obviously the radius of curvature could vary depending on the width of the ski.

FIGURES 6 through 8 show the invention in a flat ski.

The invention and many of its advantages will be understood from the foregoing description and it will be apparent that various changes may be made in the form and construction thereof without departing from the spirit and scope of the invention or sacrificing its material advantages, the form described being merely a preferred embodiment thereof.

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THE EMBODIMENTS OF THE INVENTION IN WHICH AN EXCLUSIVE PROPERTY OR PRIVILEGE IS CLAIMED ARE DEFINED AS FOLLOWS:

1. A snowmobile ski configured to reduce or eliminate the spraying of snow backwards onto occupants of a snowmobile and comprising an elongated body having a generally straight portion for riding upon the snow, an upwardly curved forward portion terminating in a leading tip, and opposed transversely extending longitudinal edges, the longitudinal edges having, solely on the upwardly curved forward portion of the ski, portions curving outwardly and downwardly near said leading tip to deflect snow away from occupants of said snowmobile when said snowmobile is in motion.
2. The ski as defined by Claim 1 wherein said outwardly and downwardly curving portions are arcuate in transverse cross section.
3. The ski as defined by Claim 2 wherein said arcuate portions extend from said tip of said ski to a point approximately on the midpoint on the arc defining said upwardly curved forward portion.
4. The ski as defined by Claim 3 wherein the radius of curvature of said arcuate portions increases from zero at said midpoint to two inches at said tip.
5. The ski as defined by Claim 2 wherein said ski includes a central portion defining a longitudinal channel.
6. A snowmobile ski configured to reduce or eliminate the spraying of snow from the ski backwards onto occupants of a snowmobile and comprising an elongated ski body having a generally straight portion for riding upon the snow, an upwardly curved forward portion terminating in a leading tip, and opposed

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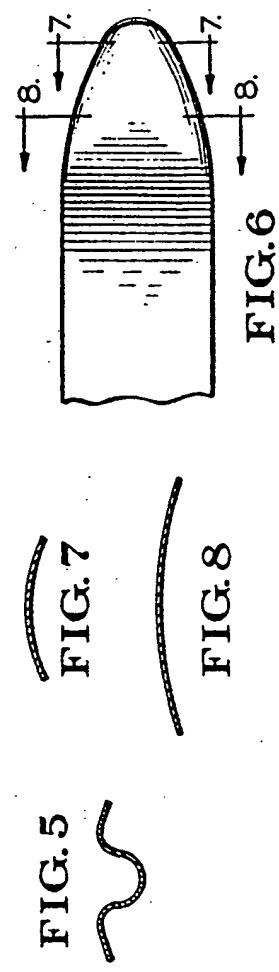
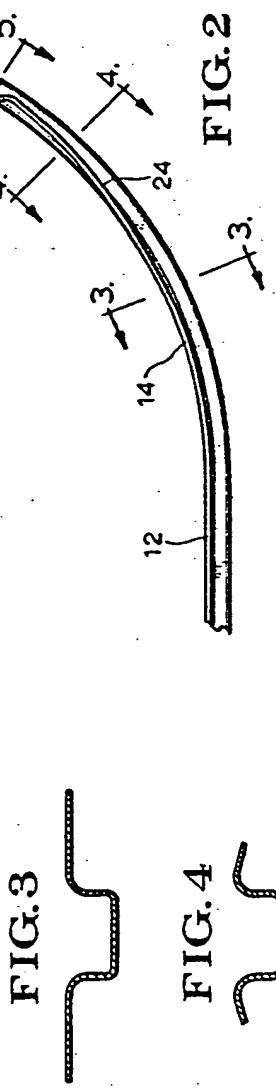
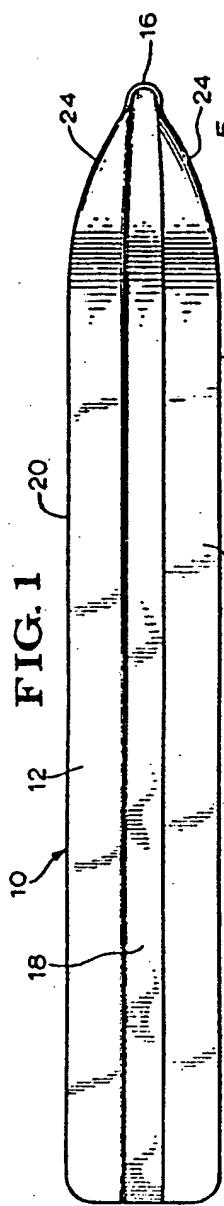
transversely extending longitudinal edges, the longitudinal edges having, solely on the upwardly curved forward portion of the ski, portions which are arcuately curved outwardly and downwardly to present generally concave surfaces to the snow, the arcuately curved portions extending substantially to the leading tip of the ski, whereby snow contacted by the concave surfaces is deflected away from occupants of the snowmobile when the snowmobile is in motion.

7. A snowmobile ski configured to reduce or eliminate the spraying of snow backwards onto occupants of a snowmobile and comprising a single, generally flat, unitary, elongated body having a generally U-shaped depression along its length and centrally of its width defining an elongated channel with opposed longitudinal edges of the elongated body transversely extending laterally outwardly from the channel, the elongated body having a generally straight portion for riding upon the snow and an upwardly curved forward portion terminating in a leading tip, the longitudinal edges of the elongated body only in the upwardly curved forward portion curving arcuately outward and downwardly adjacent the leading tip so as to present generally concave edge undersurfaces to the snow, whereby snow contacted by said edge undersurfaces is deflected away from occupants of a snowmobile when the latter is in motion.



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